

WHAT IS CLAIMED IS

1. A hydrogen-occlusion alloy regenerating apparatus comprising a deterioration detecting means for detecting that a hydrogen-occlusion alloy capable of occluding hydrogen in a reformed gas produced by a reformer and releasing hydrogen has been deteriorated due to the deposition of impurities in said reformed gas, and a regenerating section for regenerating the deteriorated hydrogen-occlusion alloy based on a detection signal from said deterioration detecting means.
2. A hydrogen-occlusion alloy regenerating apparatus according to claim 1, wherein said deterioration detecting means detects an amount of hydrogen occluded in said hydrogen-occlusion alloy, and sends the detection signal if the amount of hydrogen occluded is smaller than an amount of hydrogen occluded when the hydrogen-occlusion alloy is normal.
3. A hydrogen-occlusion alloy regenerating apparatus according to claim 1, wherein said deterioration detecting means detects a rate of occlusion of hydrogen in said hydrogen-occlusion alloy, and sends the detection signal when the hydrogen occlusion rate is lower than a hydrogen occlusion rate provided when the hydrogen-occlusion alloy is normal.
4. A hydrogen-occlusion alloy regenerating apparatus according to claim 1, 2 or 3, wherein said regenerating section includes a heating means which heats the hydrogen-occlusion alloy, based on the detecting signal from the deterioration detecting means, to release hydrogen remaining in the

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hydrogen-occlusion alloy in order to remove, by the released hydrogen, impurities from the hydrogen-occlusion alloy deteriorated due to the deposition of the impurities.

5. A hydrogen-occlusion alloy regenerating apparatus according to claim 4, wherein said regenerating section includes a remaining-amount detecting means for detecting a remaining amount of hydrogen occluded in the hydrogen-occlusion alloy, the remaining-amount detecting means sending a detection signal, when the remaining amount of hydrogen occluded has reached such an amount that the regenerating treatment is required for said hydrogen-occlusion alloy, and said heating means heats the deteriorated hydrogen-occlusion alloy based on both the detection signals from the remaining-amount detecting means and the deterioration detecting means.

6. A hydrogen-occlusion alloy regenerating apparatus according to claim 5, wherein the hydrogen released from said hydrogen-occlusion alloy is utilized for operating a fuel cell.

7. A hydrogen-occlusion alloy regenerating apparatus according to claim 6, wherein said hydrogen-occlusion alloy is of a high-pressure occluding/low-temperature releasing type.

8. A hydrogen-occlusion alloy regenerating apparatus for use in a fuel cell power generating system, the fuel cell power generating system including a reformer for producing a reformed gas containing hydrogen from a starting fuel, a hydrogen reservoir containing a hydrogen-occlusion alloy capable of occluding and releasing the hydrogen, and a fuel cell to which

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hydrogen released from said hydrogen reservoir is supplied, wherein said hydrogen-occlusion alloy regenerating apparatus includes a deterioration detecting means for detecting that the hydrogen-occlusion alloy has been deteriorated due to the deposition of impurities contained in the reformed gas, a remaining-amount detecting means for detecting that the remaining amount of hydrogen-occlusion in the hydrogen reservoir has reached such an amount that a regenerating treatment is required for the hydrogen-occlusion alloy, and a heating means for heating the hydrogen-occlusion alloy to remove the impurities by the released hydrogen, based on both detection signals from the deterioration detecting means and the remaining-amount detecting means.

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